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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,983	08/05/2003	Joseph A. Swift	D/A2211Q	6955

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ROCHESTER, NY 14644

EXAMINER
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GRAY, JILL M

ART UNIT	PAPER NUMBER
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1774

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/634,983

Applicant(s)

SWIFT ET AL.

Examiner

Jill M. Gray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: The specification contains a reference to a copending application but does not identify the application number nor indicate the current status, whether patented, pending or abandoned.

Appropriate correction is required.

### ***Response to Amendment***

The rejection of claims 1, 2, and 5-27 under 35 U.S.C. 103(a) as being unpatentable over Amarasekera et al, 6,689,835 is withdrawn upon further consideration.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 5, 6, 10, 12, 14, 15, 20, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, claim 1 is indefinite because the structural relationship of the various components is not clearly defined. The language of "plurality of conductive fibers situated within a polymer" is indefinite because the language of "situated within" does not clearly describe the structural relationship. For example, are the fibers embedded in the polymer? The language of "conductive region situated in relation to at

least one of the exterior periphery surface..." is indefinite because the language of "situated in relation to" does not clearly describe the structural relationship of the conductive region and the exterior periphery surface or interior periphery surface. It is not clear if the conductive region is located in a separate distinct section of the member near or adjacent to the exterior periphery surface or interior periphery surface. In paragraph 2, it is not clear if the plurality of conductive fibers situated in a conductive composite member is the same as or different from the plurality of conductive fibers situated within a polymer forming a conductive region. Also, it is not clear if the conductive composite member of paragraph 2 is the same member of paragraph 1. If these components are different, the structural relationship of the conductive composite member within the member is unclear. Also, the language of "situated in" is indefinite for reasons previously stated. In paragraph 3, there is no clear antecedent basis for the language of "plurality of conductive composite members". Paragraph 2 only sets forth one conductive composite member. The language of "selectively situated with respect to each other" is vague and does not clearly describe the structural relationship. For example, are the conductive composite members adjacent to each other, on opposites sides/ends of the member, aligned or parallel, etc. Accordingly, the metes and bounds for which patent protection is being sought are not clear.

Claim 5 is indefinite because it is not clear how the apparatus includes a lumen or, where said lumen is located on, is located on the apparatus.

Claim 6 is indefinite because claim 1 sets forth an apparatus. Claim 6 sets forth the apparatus including an opening in a wall. It is not clear if the apparatus of claim 1 is

a wall, wherein claim 6 adds an opening in this wall. Or alternatively, if the apparatus of claim 1 is an apparatus per se, then it is not clear how this apparatus includes an opening in a wall, as required by claim 6. Therefore, the metes and bounds for which patent protection is being sought are not clear.

Claim 10 is indefinite for the reasons set forth in claim 1.

Claim 12 is indefinite because it is not clear which member is being referred to in line 4. Also the language of "associated with" is vague.

Claim 14 is indefinite because it is not clear how this claim further defines claim 1. Claim 1 sets forth a plurality of conductive members comprising a plurality of conductive fibers. It is not clear if only one conductive member of the plurality of said members includes at least one metal or metal alloy, or if this language is in reference to the conductive fibers. Hence, the metes and bounds for which patent protection is being sought are not clear.

Claim 15 is indefinite for reasons stated above in claim 14.

In claim 20, the language of "selected cross-sectional shape" is vague.

In claim 22 the language of "in association with" is indefinite and does not clearly describe the structural relationship of the at least one set of conductive fibers and the composite member.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 7-22 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swift 6,625,046 B1.

Swift teaches an apparatus comprising a member having at least one of an exterior periphery surface and an interior periphery surface and a plurality of conductive members comprising a plurality of conductive fibers situated within a polymer per claims 1, 11, and 22. See Figures 5 and 6, column 1, lines 65-66 and column 10, lines 50-51. The conductive fibers necessarily have a first end, length and second end, and Swift teaches that his fibers have a diameter in the range of about 4 to about 50 micrometers, further teaching said fibers situated within a polymer by pultrusion forming a conductive composite member, as required by claim 2. See column 5, lines 13-20, column 6, lines 54-56, and column 10, lines 36-41. In addition, Swift teaches that the fibers can be selected from carbon, metalized or metal-coated carbon or other metal-coated fibers, per claim 9, 14, and 20. See column 6, lines 66 through column 7, and line 1. Swift additionally teaches that his composite member can be fibrillated in a brush like structure as required by claims 3, 7, 24, and 26. As to claim 25, it is the examiner's position that the brush like structure would result in substantial flexibility. Moreover, it would have been obvious to adjust the length of the fibrillated region based upon the necessary contact of the member with electric circuitry. Note also claim 7 is drawn to the future intended use, which does not provide a clear positive recitation of specific claim limitations. See column 10, lines 13--35

Also, Swift teaches that his member includes one or more layers of pultruded fabric that can be composed of non-electrically conductive fibers. These pultruded fabric layers are layered in between layers of Swift's conductive composite members, as required by claims 4, 8, 12, 18, and 21. More specifically, this configuration renders obvious the instant claimed "conductive region situated in relation to at least one of the exterior periphery surface and the interior periphery surface" and "wherein the plurality of conductive composite members are disposed in the member and are selectively situated with respect to each other and form a matrix configuration including at least one selected dimension between the plurality of conductive composite members", of present claim 1. See column 11, lines 20-67.

Swift does not teach that his conductive composite member has a metal coating on at least a portion of the outside surface, per claims 1 and 10. However, it would have been obvious to provide a metal coating of the claimed critical thickness on the outside surface of said conductive composite member to enhance the conductivity of his apparatus. Regarding claims 15 and 16, the selection of the specific metal coating would have been obvious to one of ordinary skill in this art at the time the invention was made based upon the desired resistivity and usage of the end product. As to the amount of a coating as set forth in claims 17 and 19, this would have been obvious to determine during routine experimentation commensurate with the desired resistivity of the end apparatus.

Regarding claim 13, this claim is a product-by-process claim whereby patentability relies solely upon the product. Accordingly, the teachings of Swift obviate this claim.

As to claim 27, this claim is drawn to the future intended use of the apparatus and does not provide a recitation of clear patentable limitations. It is the position of the examiner that the apparatus of Swift is substantially similar to that of applicants and therefore is suitable for use in an RF circuit to conduct current in the instant claimed range, in the absence of clear factual evidence to the contrary.

No claims are allowed.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

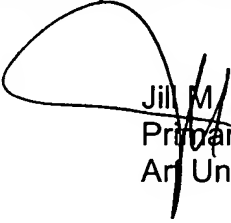
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jill M. Gray  
Primary Examiner  
Art Unit 1774

jmg